

# **CHAPTER 7: MATERIALS**

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### Material Control

#### Purpose of Materials Control

##### A. Compliance with Specifications

An adequate and effective system for control of the materials used in a project is absolutely essential. It is necessary to ensure that the materials furnished and the work completed by the Contractor conforms to the requirements of the Plans and Specification.

Control includes the inspection, sampling, testing and measurements of materials and processes the reporting of results and any follow-up that may be necessary, especially in the case of test failures. Without any one of these actions it is impossible for the Resident Engineer to have a complete and positive verification of compliance.

##### B. Uniform Relations with Contractors

The Specifications and Plans provide an equitable basis for bidding by Contractors, since they define the minimum requirements that are to be met. The contractor commits to furnishing materials and completed work that will equal or exceed such requirements.

The Resident Engineer verifies, through materials control measures, that the Contractor is delivering what is specified under the contract. Nothing less should be accepted. To do so, would not only be a disservice but would be giving undue advantage to the Contractor. Other Contractors who had bid on the same work could contend that they would have offered a lower bid had they been able to anticipate that materials or work outside of Specifications would be accepted.

In exercising materials control, it is essential that all Resident Engineers and Inspectors apply it uniformly from project to project so that all Contractors and suppliers are treated alike. Specifications and Plans are prepared so there will be the least possible difference of interpretation, both on the part of the Contractor and on the part of the Resident Engineer. The **Materials Manual, Part 8** provided guidance to the field engineering personnel on the interpretation of the Specifications and the application of the materials control measures. The Resident Engineer is thoroughly familiar with the materials requirements for projects to which they are assigned. In addition the **AASHTO Testing** and **AASHTO Specification** book on highway materials are to be in the project laboratories and an ongoing continual training program is in effect at the project level to assure compliance with material requirements.

**C. Materials Documentation**

Through the materials control process, the Resident Engineer acquires substantiating data in the form of tests, inspection records and measurements to justify acceptance of the Contractor's work. Complete records including tests and Inspector reports covering acceptance or rejection are maintained in the Resident Engineer's project files for verification and as supporting evidence for payment documents.